

ABSTRACT

There is provided a semiconductor device which is capable of solving a problem of threshold control in CMOS transistor, accompanied with combination
5 of a gate insulating film having a high dielectric constant and a metal gate electrode, and significantly enhancing performances without deterioration in reliability of a device. The semiconductor device includes a gate insulating film composed of a material having a high dielectric constant, and a gate electrode. A portion of the gate electrode making contact with the gate insulating film has a
10 composition including silicide of metal M expressed with $MxSi_{1-x}$ ($0 < x < 1$), as a primary constituent. x is greater than 0.5 ($x > 0.5$) in a p-type MOSFET, and is equal to or smaller than 0.5 ($x \leq 0.5$) in a n-type MOSFET.